

In the claims:

1. A disc prosthesis comprising, in combination, a cylindrical housing, the housing including an upper half and a lower half and a plurality of resilient, viscoelastic discs interposed between the upper half housing and the lower half housing to maintain the housing halves separate from one another.

2. (Currently Amended) A disc prosthesis according to claim 1 wherein said discs are ovoid in shape and are of similar size and compressibility.

3. (Currently Amended) A disc prosthesis according to claim 1 wherein each disc is partly surrounded by a concave surface formed within said housing and at least one post extending from the concave surface into a central portion of the corresponding disc.

4. A disc prosthesis according to claim 1 wherein said housing has a threaded exterior surface bearing a screw thread shape.

5. A disc prosthesis according to claim 4 wherein said screw thread is continuous, and is contiguous from housing half to housing half so that the disc prosthesis can be screwed into a pre-tapped intervertebral space hole.

6. A disc prosthesis according to claim 1 wherein recesses are defined in said housing to permit bone ingrowth.

7. (Currently Amended) A disc prosthesis according to claim 4 including a wing member attached to each of the upper and the lower half housing members, the wings permitting the housing halves to be affixed to spinal vertebrae.

no cylindr housing 8. ✓ (Currently Amended) A disc prosthesis affixed within a human spine, the prosthesis comprising an upper half housing engaging the cephalad vertebral bone inferior end plate; a lower half housing engaging the caudal vertebral bone superior ~~and~~ end plate; and a plurality of separate, resilient discs interposed between the housing halves.

9. A disc prosthesis according to claim 8 wherein each disc is partly surrounded by a concave surface formed within one of said housing halves.

10. 10 A disc prosthesis according to claim 8 wherein each housing half has a threaded exterior surface.

one disc 11. ✓ A disc prosthesis comprising, in combination, a hollow cylindrical housing, the housing including two separate halves and at least one prosthetic disc located between the two housing halves.

12. ✓ A disc prosthesis according to claim 11 in which each housing half is at least partly defined, in its interior, by a concave surface.

13. ✓ (Previously Amended) A plurality of disc prostheses located within a human spine, each prosthesis comprising an upper half housing engaging a cephalad bone inferior end plate; a lower half housing engaging a caudal vertebral bone superior end plate; and at least one resilient disc interposed between each of the housing halves, wherein each prosthesis has a threaded exterior surface.

14. (Previously Cancelled) A plurality of disc prostheses according to claim 13, each prosthesis having a threaded exterior surface.

15. ✓ (Previously Amended) A plurality of disc prostheses according to claim 13 wherein each prosthesis has recesses defined in its exterior surface to permit bone ingrowth.

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Cond 16. ✓ A viscoelastic prosthetic disc for use in a human spinal implant, the disc having viscoelastic properties similar to the natural biological disc found in the human spine, the prosthetic disc having convex external surfaces for sliding engagement with concave surfaces formed on the interior of rigid upper and lower half housings. 112

17. ✓ The disc of claim 16 wherein said disc has a relatively soft and resilient interior and a relatively hard and durable exterior.

107 18. ✓ (Previously Amended) A disc prosthesis comprising:
a housing, comprising at least two rigid, confronting and complimentary parts, each having an exterior surface together defining a general continuous thread formation, and each having an interior surface at least a portion of which is concave;

at least one resilient, viscoelastic disc interposed between the housing parts to maintain the housing parts separate from one another but to provide cushioning between the housing parts and to permit limited motion of the housing parts.

107 19. ✓ A disc prosthesis according to claim 18 wherein the housing thread is adapted to engage the bone of adjacent vertebral bodies.

20. ✓ A disc prosthesis according to claim 18 including a sheath attached to said housing halves.

21. ✓ A disc prosthesis according to claim 18 including a plurality of nuclei of different sizes.
